

## Marine Science Midterm Review

1. Another name for a water pressure illness is Barotrauma.
2. Who is Jacques Cousteau and what did he invent? Why did his invention fail?  
1<sup>st</sup> to discover life in ocean w/a camera.  
1<sup>st</sup> SCUBA gear called Aqualung - failed b/c he used pure  $O_2$
3. What is the bends?  
Gas bubbles in tissues caused by going up to quickly (Bend over in pain)
4. What is Nitrogen Narcosis?  
Going too deep - below 30 meters  
Divers appears drunk  
Helium added to tank  
b/c going too deep
5. A recreational diver breathes a mixture of gases.
6. How do you relieve pressure that can build up in a divers ear?  
hold nose & blow
7. What is an air embolism?  
bubble of  $CO_2$  stays inside tissues.
8. What does SCUBA stand for?  
Self contained underwater breathing apparatus.
9. What and where is the gulf stream? Who discovered it?  
River like current going up coast of US & over to Europe.  
Ben Franklin discovered it as post master general.

10. Define the following:

- a. Gyre - circular ocean current
- b. riptide - current that rips part of a sandbar out to ocean to get out swim parallel to shore \* Fast narrow current going seaward
- c. global ocean current - large current that moves across ocean
- d. coriolis effect - spinning of earth which causes winds & surface waters to move.

11. Name 3 events that can cause a tsunami.

- ① Earthquakes
- ② Volcanic action
- ③ Undersea landslide

12. Charles Darwin is important in Marine Biology because he discovered many different marine organisms.

13. The deepest trench is called the Marianis trench and is located in the Pacific Ocean.

14. Name 3 things that can cause ocean currents. (Remember the food coloring lab)

- Temperature
- Salinity
- Coriolis effect

15. A warm ocean current flows away from the equator.

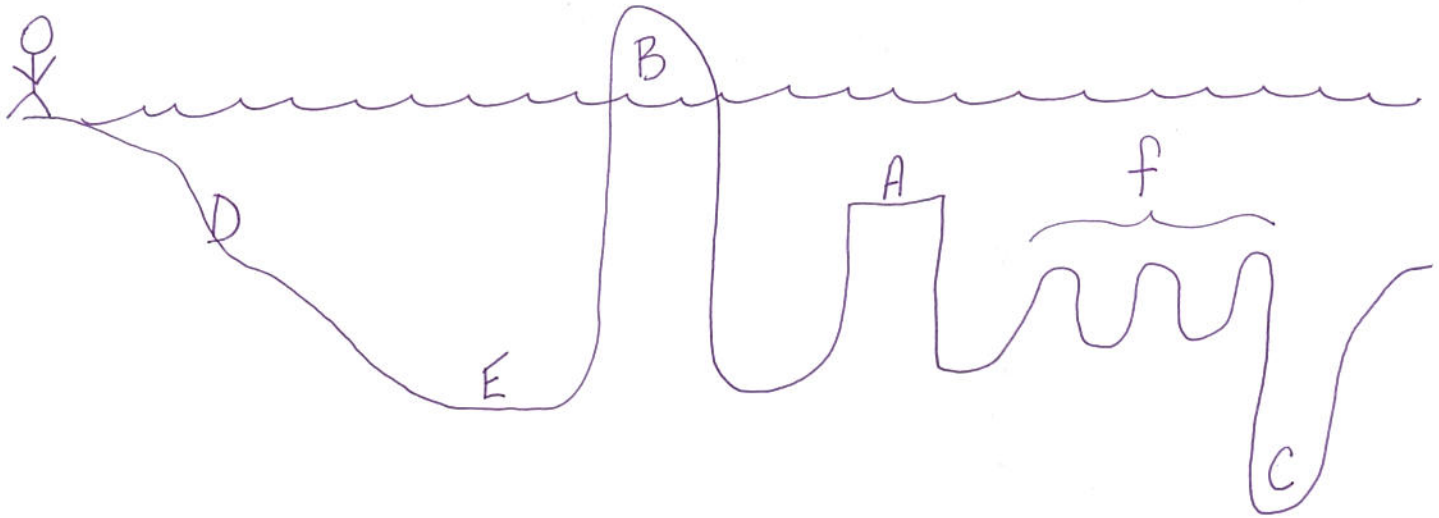
16. A cold ocean current flows away from the poles.

17. The ocean currents in the Northern Hemisphere flow clockwise.

18. The ocean currents in the Southern Hemisphere flow counter clockwise.

19. Draw the following topographical features of the ocean bottom:

- a. guyot
- b. island
- c. trench
- d. continental slope
- e. abyssal plain
- f. seamount



20. What happens to temperature as you get deeper in the ocean?

It decreases or gets colder

21. Why was it so hard to find the Titanic?

Because the ocean is so vast  
(Think-needle in a haystack)

22. What is a submersible? Name the submersible that helped locate the Titanic.

Underwater submarine

Alvin-Jason

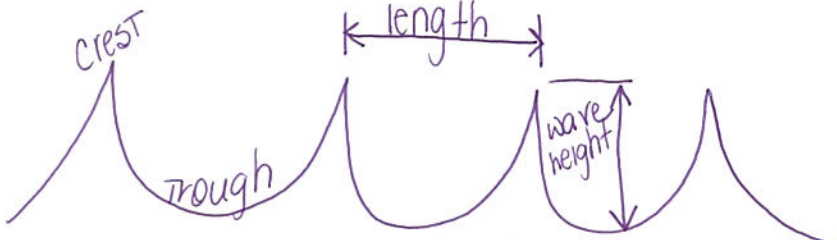
23. What scientist helped locate the Titanic?

Robert Ballard



24. Wave are caused by wind.

25. Name and label the parts of a wave.



26. Highest tides occur during new moons and full moons.

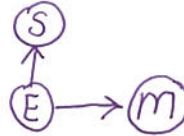
27. There is more storm damage during high tides.

28. Compare and contrast Spring and Neap tides.

Both occur 2x a month

Spring - line up (S) - (M) - (E)

Neap - at right angles



29. Name 3 things that cause tides.

~~Earth~~ Sun  
Moon

Earth's rotation

30. What is El Nino?

Weakening of trade winds increases surface temperature of water  
decreased upwelling of nutrients along coast of S. America - changes weather patterns.

31. On the map below, identify how the weather changes during an El Nino year.

